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Alberta OIL REVIEW

By J.L. Irwin

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ALBERTA



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1946 Alberta Oil Review

By J. L. IRWIN*

THE oil decline of recent years in Alberta was evidenced again in 1946. Production total for the year was 7,137,693 barrels in comparison with 8,055,440 in 1945, a decrease of 917,747.

The following tables show official production totals with quantities representing barrels of 35 imperial gallons.

*Supervisor of Publications,
Department of Economic Affairs



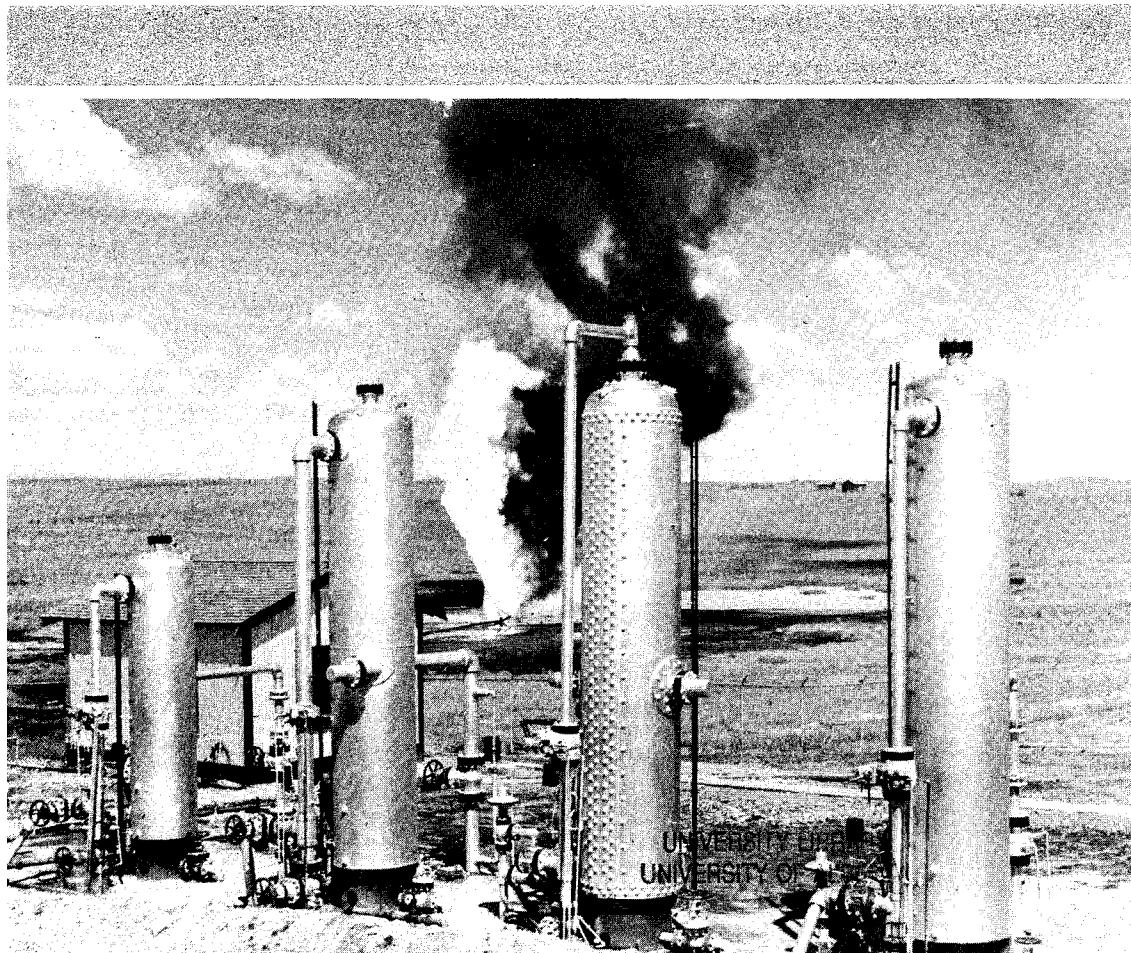
ALBERTA OIL PRODUCTION

(DAILY AVERAGE)

MONTH	1945	1946	CHANGES	1945	1946
January -----	744,167	660,645	-83,522	24,005	21,311
February -----	650,432	593,367	-57,065	23,230	21,192
March -----	725,231	644,205	-81,026	23,394	20,780
April -----	678,546	601,955	-76,591	22,618	20,065
May -----	695,477	598,018	-97,459	22,434	19,291
June -----	651,483	582,149	-69,334	21,716	19,405
July -----	680,506	591,772	-88,734	21,952	19,089
August -----	669,755	575,489	-94,266	21,605	18,564
September -----	624,615	565,854	-58,761	20,821	18,862
October -----	652,159	583,328	-68,831	21,037	18,817
November -----	640,516	576,214	-64,302	21,350	19,207
December -----	642,553	564,697	-77,856	20,728	18,216
TOTALS -----	8,055,440	7,137,693	-917,747	22,069	19,555

Value of production for 1945 ----- \$13,106,928

Value of production for 1946 ----- \$14,348,069



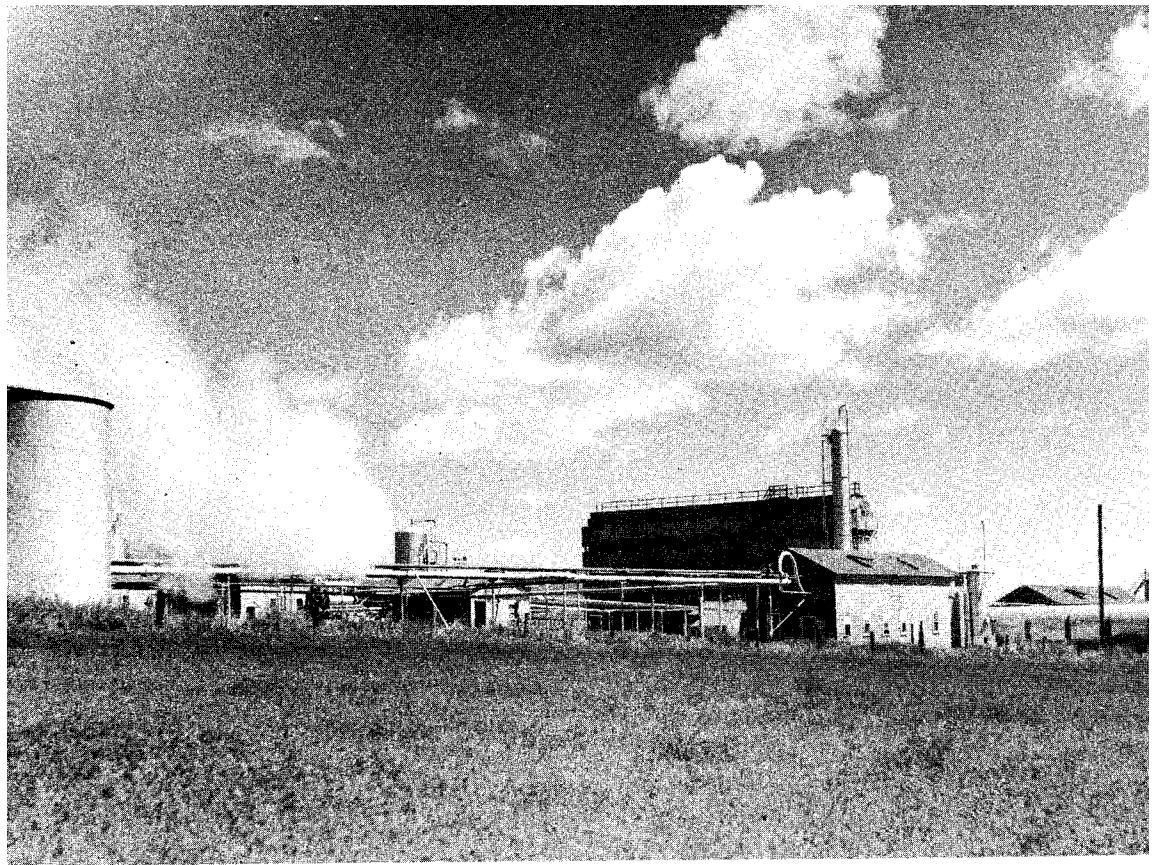
TURNER VALLEY PRODUCTION

1945	LIMESTONE ZONE	SHALLOW ZONE	NATURAL GASOLINE	TOTAL
January-----	643,028	216	47,717	690,961
February-----	568,662	150	38,167	606,979
March-----	645,363	162	34,903	680,428
April-----	594,410	150	33,739	628,299
May-----	622,989	250	28,728	651,967
June-----	574,460	218	26,628	601,306
July-----	593,255	234	27,424	620,913
August-----	576,181	755	28,719	605,655
September-----	535,163	586	32,665	568,414
October-----	552,496	515	36,125	589,136
November-----	551,639	462	38,711	590,812
December-----	547,943	234	39,014	587,191
TOTALS -----	7,005,589	3,932	412,540	7,422,061

1945 and 1946

TURNER VALLEY PRODUCTION

1946	LIMESTONE ZONE	SHALLOW ZONE	NATURAL GASOLINE	TOTAL
January-----	555,489	685	40,755	596,927
February-----	497,760	623	37,733	536,116
March-----	545,197	1,147	34,644	580,988
April-----	505,820	1,043	33,045	539,908
May-----	499,134	903	34,212	534,249
June-----	485,110	852	34,063	520,025
July-----	492,087	667	33,493	526,247
August-----	478,075	564	32,882	511,521
September-----	462,181	553	32,491	495,225
October-----	479,286	584	37,493	517,363
November-----	466,795	631	41,673	509,099
December-----	461,540	638	41,726	503,904
TOTALS-----	5,928,474	8,888	434,210	6,371,572
CHANGES -----	--1,077,115	+4,956	+21,670	-1,050,489



British American Oil Company Extraction Plant, south Turner Valley

OIL PRODUCTION FROM FIELDS OUTSIDE TURNER VALLEY

FIELD	1945	1946	CHANGES
Taber -----	135,000	206,086	+ 71,086
Conrad -----	143,696	212,645	+ 68,949
Princess -----	63,377	64,953	+ 1,576
Red Coulee -----	-----	1,140	+ 1,140
Del Bonita -----	4,091	2,064	- 2,027
Jumping Pound -----	3,471	3,986	+ 515
Vermilion -----	238,358	183,946	- 54,412
Lloydminster (Alberta Side) -----	28,321	76,187	+ 47,866
Wainwright -----	16,472	15,114	- 1,358
Tilley -----	593	-----	- 593
TOTALS-----	633,379	766,121	+132,742

ALBERTA'S ANNUAL OIL PRODUCTION TOTALS

1914 to 1946, inclusive

(Quantities in Barrels of 35 Imperial Gallons)

1914-21	56,675	BROUGHT FORWARD	7,144,086
1922	15,796	1934	1,266,049
1923	10,003	1935	1,263,968
1924	17,749	1936	1,320,428
1925	180,885	1937	2,796,874
1926	219,598	1938	6,743,101
1927	332,312	1939	7,593,492
1928	489,532	1940	8,495,207
1929	999,523	1941	9,908,643
1930	1,436,259	1942	10,136,296
1931	1,454,816	1943	9,674,548
1932	918,154	1944	8,788,726
1933	1,012,784	1945	8,055,440
CARRIED FORWARD	7,144,086	1946	7,137,693
		TOTAL	90,324,551

NOTE:- The above is a revised production table, in comparison with those published in the years prior to 1943. Revisions in yearly totals, made necessary by the receipt of additional data, include for 1942 a deduction of 6,974 barrels for storage loss at Vermilion.

In the first of the above statements showing oil production for Alberta as a whole, a decrease of 917,747 barrels appears for the province for 1946 in comparison with the preceding year's total. This is the result of Turner Valley's decrease of 1,050,489 barrels less the increase from fields outside the Valley of 132,742 barrels. The main decrease came from Turner Valley's production in the limestone zone, which amounted to 1,077,115 barrels. This was offset to a small extent by production increases in the Valley's shallow zone of 4,956 barrels and increased production of natural gasoline recovered in the Valley which amounted to 21,670 barrels.

Fields outside Turner Valley continued to show increases as in previous years with the exception of Vermilion which decreased 54,412 barrels in comparison with its 1945 total. In glancing at the statement dealing with the performance of fields outside the Valley it will be seen that Taber, Conrad and Lloydminster (Alberta side) provided the most noticeable increases.



TURNER VALLEY

With the close of the year, the north end of Turner Valley once again offered a surprise when Home 24 well came in with a flush production, after acidizing, in excess of 1,000 barrels per day. The new well is a half mile to the north-west of Home 2, which, in its many years of production, has now piled up a total of about $1\frac{3}{4}$ million barrels. Home 25 is also preparing to drill. It is a half mile to the south of Home 2 and should prove interesting to watch. Another Home well, No.

26, is drilling too. Its situation is a half mile north of Home 16, the Valley's present most northerly producer. Home 26 is $3\frac{1}{2}$ miles to the north of Home 24.

LLOYDMINSTER

The Lloydminster field was the centre of interest during 1946. Situated some thirty miles to the east of Vermilion it lies partly in Alberta and partly in Saskatchewan.

Production on the Alberta side for the year totalled 76,187 barrels, an increase of 47,866 over 1945. On the Saskatchewan side, the total was 136,863 barrels, an increase over the preceding year of 120,355.

The field has been producing in a small way since 1939 with production starting to become noticeable in 1945 and particularly so in 1946. The total cumulative production for the combined field, from 1939 to 1946, inclusive, is 270,035 barrels. Gravity of the oil is from 10° to 40° , A.P.I. recovered at depths around 1,900 feet.

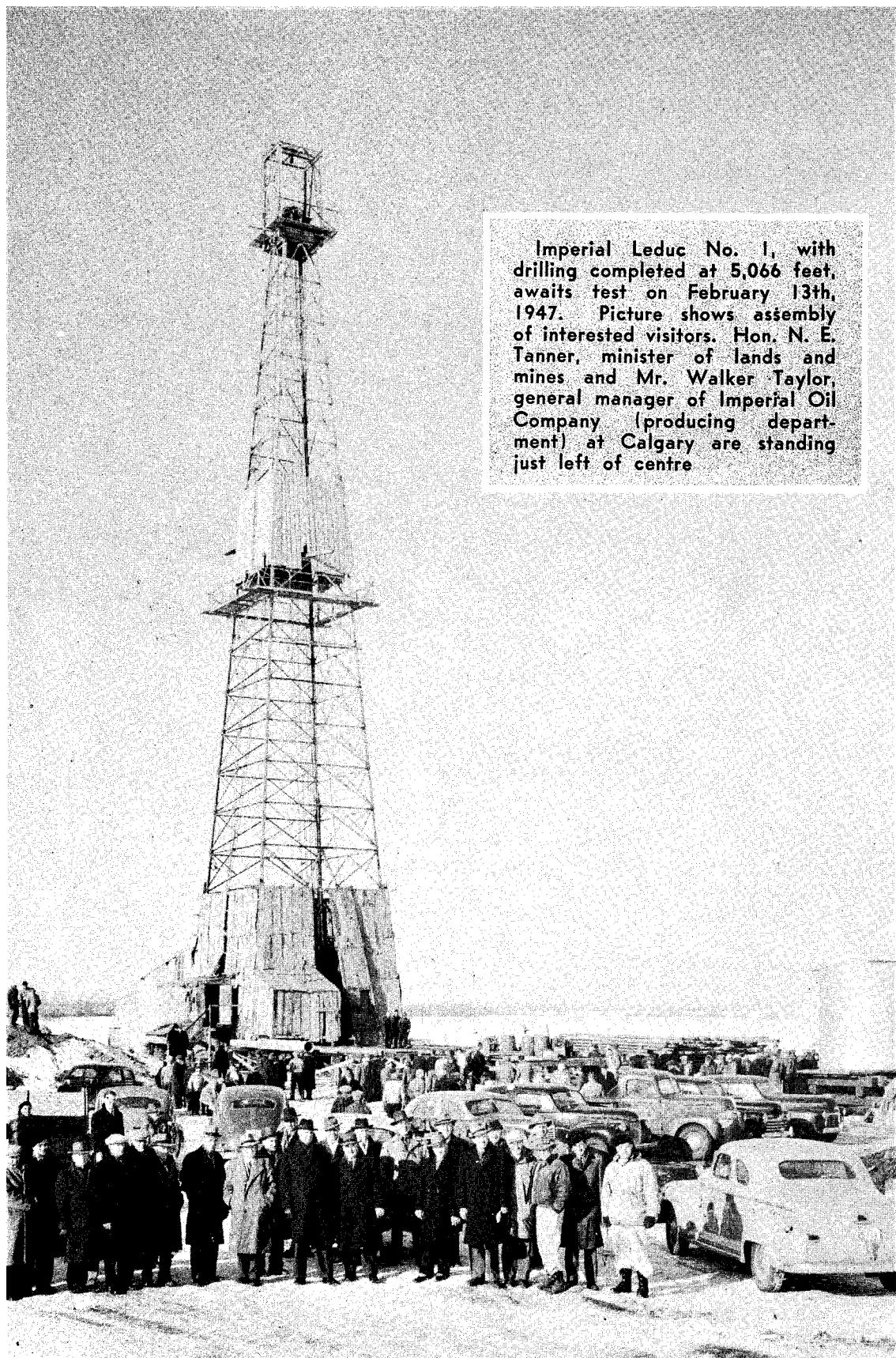
On the strength of present production figures, the Lloydminster field has made a most encouraging advance. With the arrival of increased refinery facilities the progress of this new and important area should continue to attract attention in the Canadian petroleum world.

OIL PRODUCTION FROM THE LLOYDMINSTER FIELD
1946

	ALBERTA		SASKATCHEWAN		COMBINED	
	SIDE		SIDE		FIELD	
	NUMBER OF PRODUCING WELLS	BARRELS	NUMBER OF PRODUCING WELLS	BARRELS	NUMBER OF PRODUCING WELLS	BARRELS
January -----	11	3,904	6	4,909	17	8,813
February -----	11	3,430	6	3,838	17	7,268
March -----	13	3,908	7	4,603	20	8,511
April -----	8	2,891	10	9,059	18	11,950
May -----	13	5,306	13	11,347	26	16,653
June -----	10	5,526	15	8,643	25	14,169
July -----	14	6,565	16	8,087	30	14,652
August -----	20	5,926	17	7,399	37	13,325
September -----	21	10,547	19	21,150	40	31,697
October -----	22	8,983	19	20,862	41	29,845
November -----	23	11,165	21	22,632	44	33,797
December -----	23	8,036	21	14,334	44	22,370
TOTALS -----	--	76,187	--	136,863	--	213,050

ANNUAL TOTALS

1939-----	348	-----	348
1940-----	1,648	331	1,979
1941-----	416	-----	416
1942-----	477	-----	477
1943-----	2,640	-----	2,640
1944-----	6,296	-----	6,296
1945-----	28,321	16,508	44,829
1946-----	76,187	136,863	213,050
TOTALS-----	116,333	153,702	270,035



Imperial Leduc No. 1, with drilling completed at 5,066 feet, awaits test on February 13th, 1947. Picture shows assembly of interested visitors. Hon. N. E. Tanner, minister of lands and mines and Mr. Walker Taylor, general manager of Imperial Oil Company (producing department) at Calgary are standing just left of centre

The Leduc Development

FOLLOWING the close of 1946, the new year opened for Alberta's oil world in spectacular manner at Leduc. Imperial Leduc No. 1 well, drilling about 10 miles from that town and some 20 miles south-west of Edmonton, came into production on Thursday, February 13th. In the first 14 hours, flush production totalled approximately 550 barrels.

The well was completed in the Devonian limestone at a depth of 5,066 feet. No water intrusion was experienced during drilling though there was small evidence of it in two of the drill stem tests. Drilling ran into no complications, and coring was carried out continuously. The well was completed in 86 days. Tests since made through chokes of varying sizes have resulted in daily production runs approximating 200 to 300 barrels. Total production in the first two weeks was in the neighbourhood of 5,000 barrels. Recoveries were made from a porous zone 5,029 to 5,066 feet from the surface.

Accessibility of the well-site was a distinct help. If a major field develops it is probable that a gravelled road to the site from Leduc will materialize. In the meantime there is a prospect of an east and west road one mile north of the site being gravelled to the Calgary - Edmonton highway.

Three 580 barrel storage tanks are installed at the well-site. Oil is delivered to Leduc by truck, thence by railway tank car to the refinery at Calgary. Gas-oil ratio is low — under 500 cubic feet per barrel. Gravity of the oil is from 38° to 40° API.

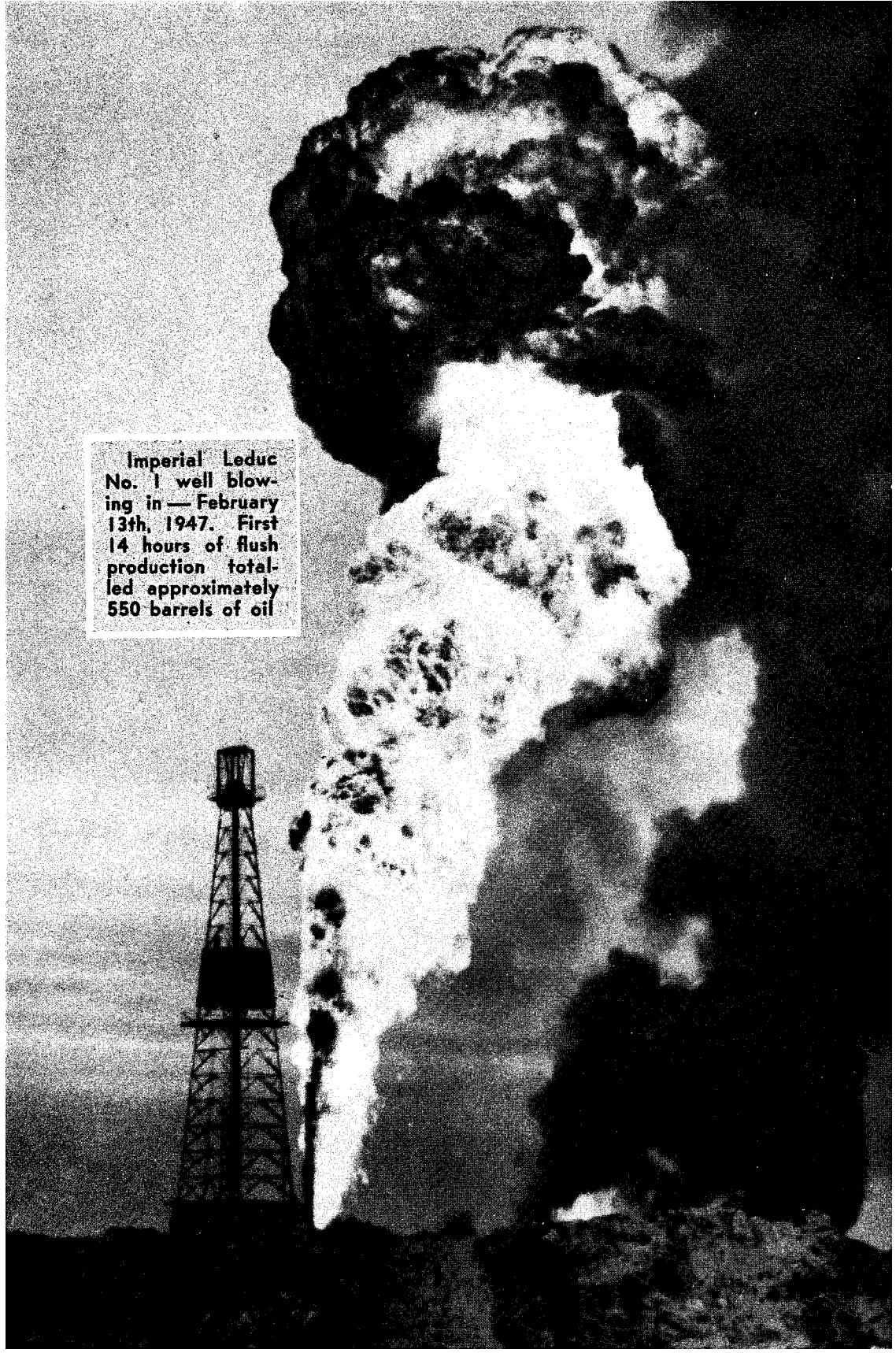
A second well, Leduc No. 2, was spudded in on February 12th, and was down to 2,982 feet on February 28th. Leduc No. 3 is being rigged for spudding in. Locations of the three wells are as follows:-

Leduc No. 1 5, 22-50-26W4,

Leduc No. 2 1, 16-50-26W4, approximately 1 mile SW of No. 1,

Leduc No. 3 10, 26-50-26W4, approximately 2 miles NE of No. 1.

A huge area is under lease by different companies and other development programmes are under way. The No. 1 well is pronounced the largest producer of any field outside of Turner Valley. On the day the well blew in, many people, having notice of the event, were present and a stream of cars arrived at the site carrying officials and the general public. A short radio programme was arranged right from the well and general information of an interesting nature was broadcasted. It was an event which suggested the most encouraging possibilities for the future of Alberta's oil industry.



Imperial Leduc
No. 1 well blow-
ing in — February
13th, 1947. First
14 hours of flush
production total-
led approximately
550 barrels of oil

CENTRAL FOOTHILLS DEVELOPMENT

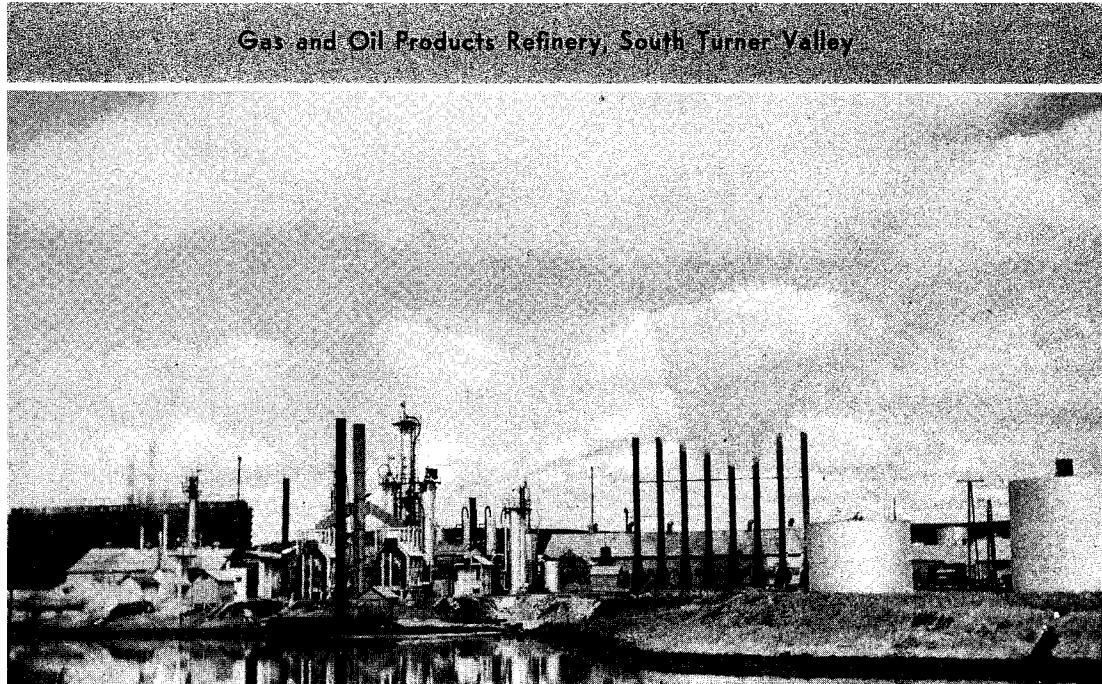
Development of the central foothills area west of Red Deer was continued during the year by Ram River Oils.

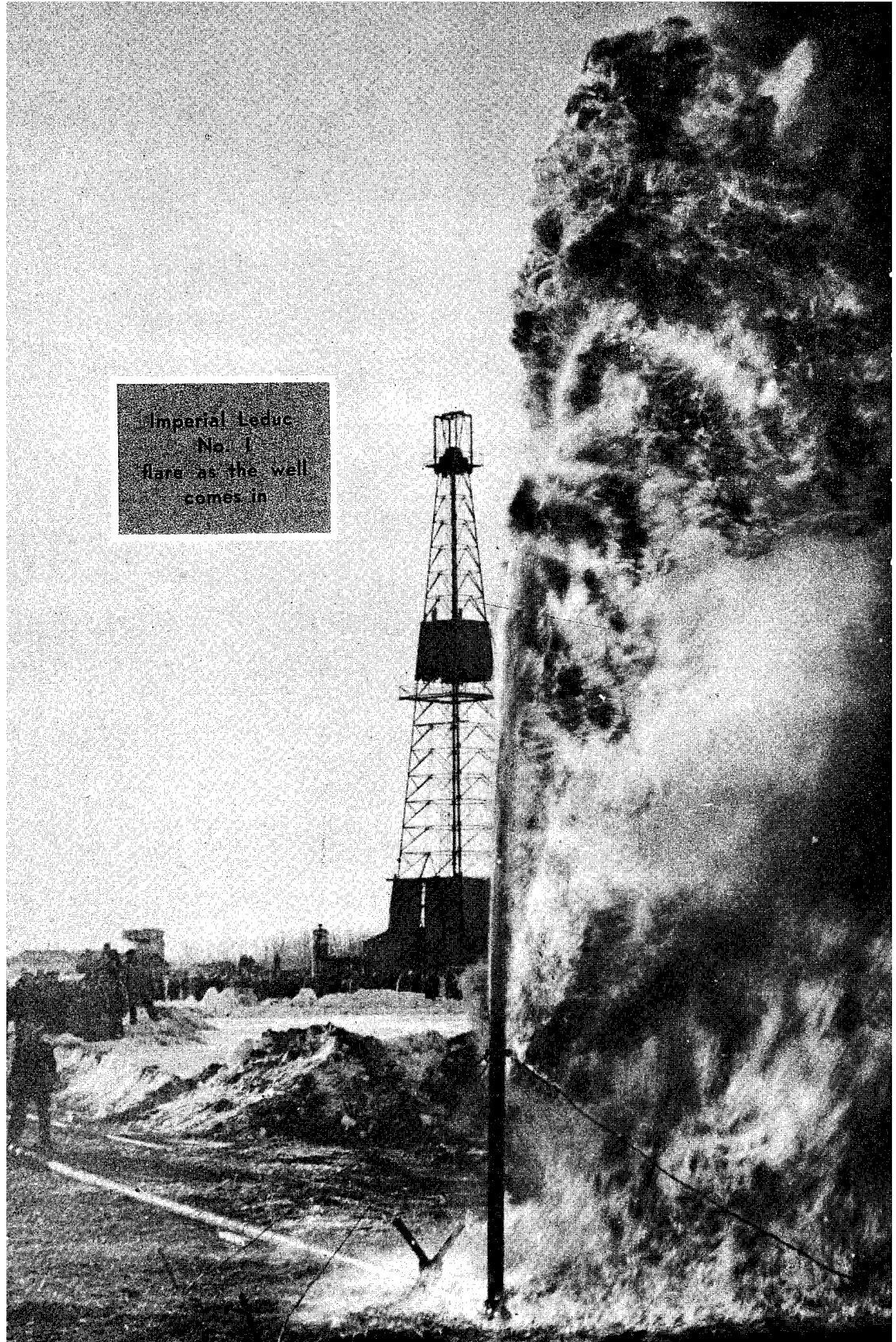
Ram River No. 2 well, the small production of which was discontinued some years ago as a result of insufficient size of hole, is now installed with a one inch streamlined production tube coupled to a Baldwin surge pump. Initial tests brought a small recovery of oil while the pump surged. Gas pressure is reported to have increased considerably. Water appeared with the oil, much of it presumably the water pumped into the well when the surge pump was being installed. While it is decreasing, some time will be required before it is eliminated and a production test made. Before this is done, however, it is intended to make nitro-glycerine shots to open up the zone.

No. 3 well, situated a distance of 1,346 feet from No. 2, is drilling at a depth around 3,400 feet. The structure is logging similarly to No. 2 which encountered the production zone at 4,260 feet.

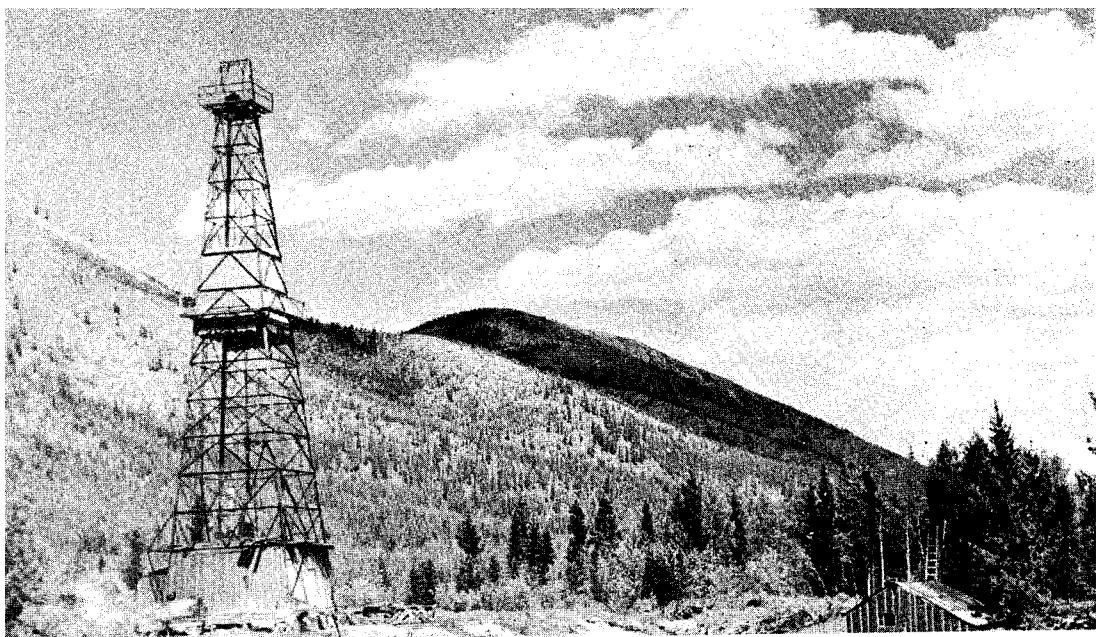
No. 4 well on the Clearwater River, close to the Altoba well drilled some years ago, is now being tested. A nine inch hole has been drilled to a depth of 1,460 feet. Oil showed up in the porous core at from 1,340 to 1,430 feet and a small recovery was made. The oil was stated to be similar in quality to that from No. 2, approximately 16 miles to the north. A seven inch casing has been cemented to 1,340 feet. Very good porosity and permeability have been reported. A series of nitro-glycerine shots are to be made to break down and get in behind the mud. These will be followed by acidizing.

Gas and Oil Products Refinery, South Turner Valley





Imperial Leduc
No. 1
flare at the well
comes in



Ram River No. 4 well drilling on Clearwater anticline in the foothills west of Red Deer

NATURAL GAS

The total utility market in connection with Alberta's natural gas for 1946 was 29,837,000 Mcf in comparison with 29,643,624 Mcf for 1945.

Much activity was in evidence during 1946 with a view to ascertaining the size and potentiality of Alberta's natural gas reserves. This was particularly so in the Viking-Kinsella field where several wells were successfully completed which extended as a result the boundaries of that productive area.

Estimated potentialities of the three main Alberta natural gas reserves, in operation many years, are now given as follows:-

Turner Valley	343 MMMcf
Viking-Kinsella	1,000 MMMcf
Medicine Hat-Redcliff	150 MMMcf

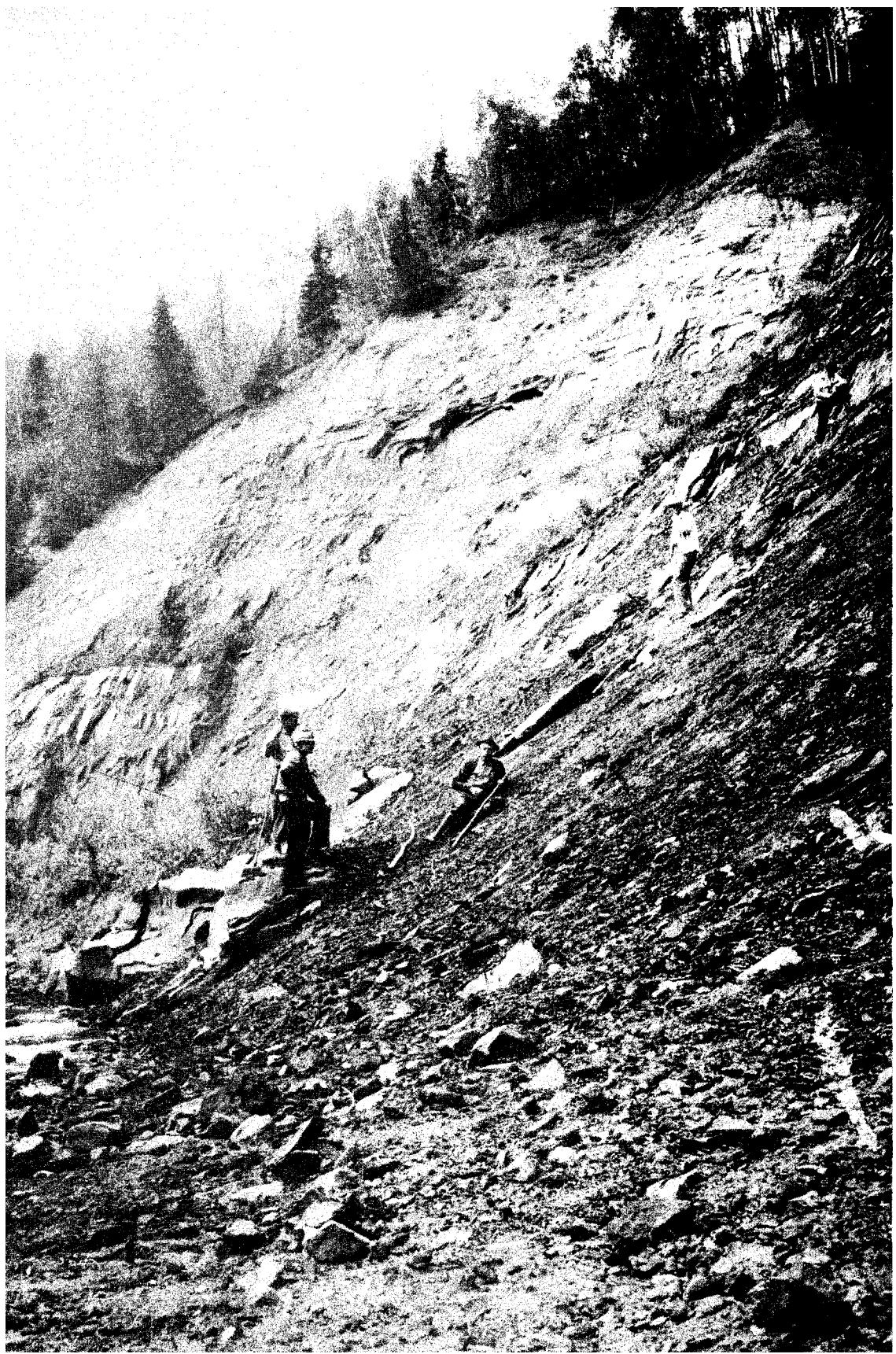
Added to these are semi-proven areas such as Jumping Pound, Pakowki and Princess-Steveville in the south, with Peace River and Pouce Coupe in the north. Natural gas with varying pressures may be obtained almost anywhere in Southern Alberta and in many other parts of the province.

In view of the understanding that by-products such as gasoline, fuel and Diesel oils, plastics, alcohol and many other chemicals may now be economically recovered from natural gas, the huge reserves lying in Alberta have taken on a new and important significance.



Bituminous Sands Outcrops in McMurray Area





THE LATE C. W. DINGMAN

The death of Charley Dingman, which took place in Calgary on Thursday, March 14th, 1946, was a severe loss not only to his many friends, but also to Alberta's petroleum industry.

He was a nephew of the well-known A. W. Dingman of Calgary Petroleum Products. The activities of this company resulted in the discovery of oil in Turner Valley in 1914. This historic event introduced Alberta to the Dominion as an oil-producing province which was later to take first place amongst the provinces of Canada in this respect, providing ninety per cent of such production, and place Canada in second place amongst the oil-producing countries of the British Empire.

As early as 1913 Charley Dingman was closely associated with Alberta's oil industry — first with his famous uncle and later with the Dominion Government. After the transfer of the natural resources to Alberta, he entered the services of the Alberta Government in which he held the position of director of the petroleum and natural gas division of the department of lands and mines. When the petroleum and natural gas conservation board was formed in Calgary, he became a member of the board and later head of that institution.

In 1941 his services were secured by the Home Oil Company as their chief petroleum engineer, a position which he held with considerable success up to the time of his death. Amongst professional organizations to which he belonged were the Professional Engineers, Petroleum Geologists, Engineering Institute and the Institute of Mining and Metallurgy.

He was a well known figure in Alberta's petroleum history, and one that the province could ill afford to lose.



OIL PRODUCTION IN CANADA

Oil production in Canada by provinces for 1945 and 1946 is given as follows:-

PROVINCE	1945	1946	CHANGES
(Quantities represent barrels of 35 Imperial Gallons)			
Alberta -----	8,055,440	7,137,693	-917,747
Northwest Territories	345,171	223,000*	-122,171*
Ontario -----	113,325	121,000*	+ 7,675*
Saskatchewan ---	16,508	136,863	+120,355
New Brunswick ---	30,140	29,000*	-1,140*
TOTALS -----	8,560,584	7,647,556*	-913,028*

*Preliminary figures.

Alberta and the Northwest Territories it will be noticed are principally responsible for the above decline. The Northwest Territories, as stated in previous reviews, started a definite production decline following the close of the Whitehorse refinery in March, 1945. This was followed in turn by the shutting down of the majority of the Fort Norman wells, production from which had been transported by the Canol project pipe-line to Whitehorse. Only those wells required for production of aviation fuel and for use in the mining areas of the Northwest have since been producing.

WORLD OIL PRODUCTION

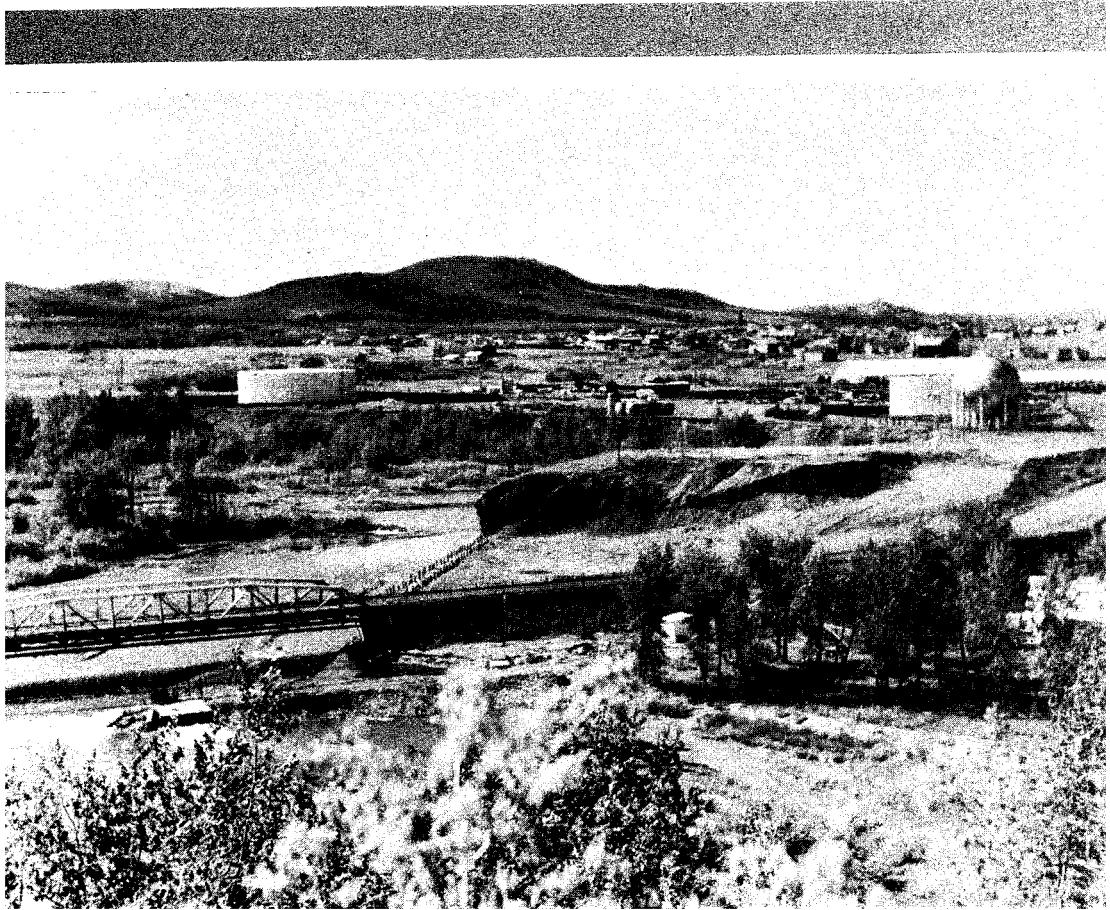
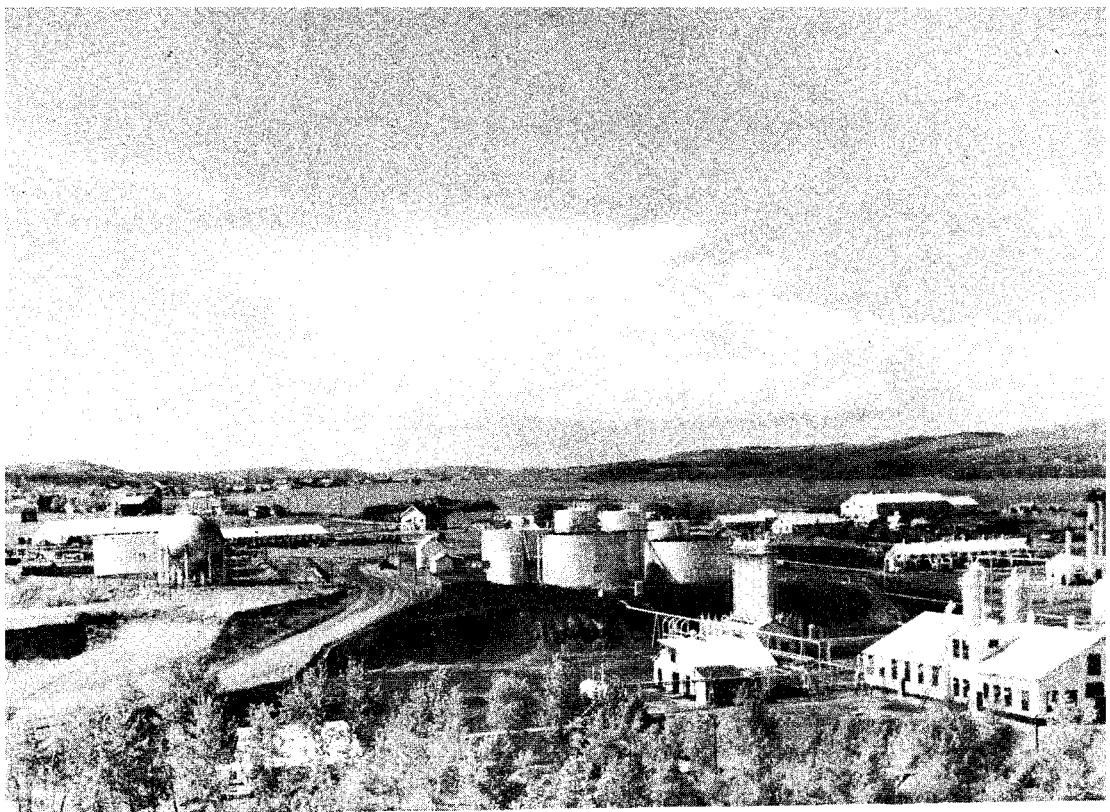
As world oil production figures for 1946 are not yet available, only a general figure can be given as to the total recovered.

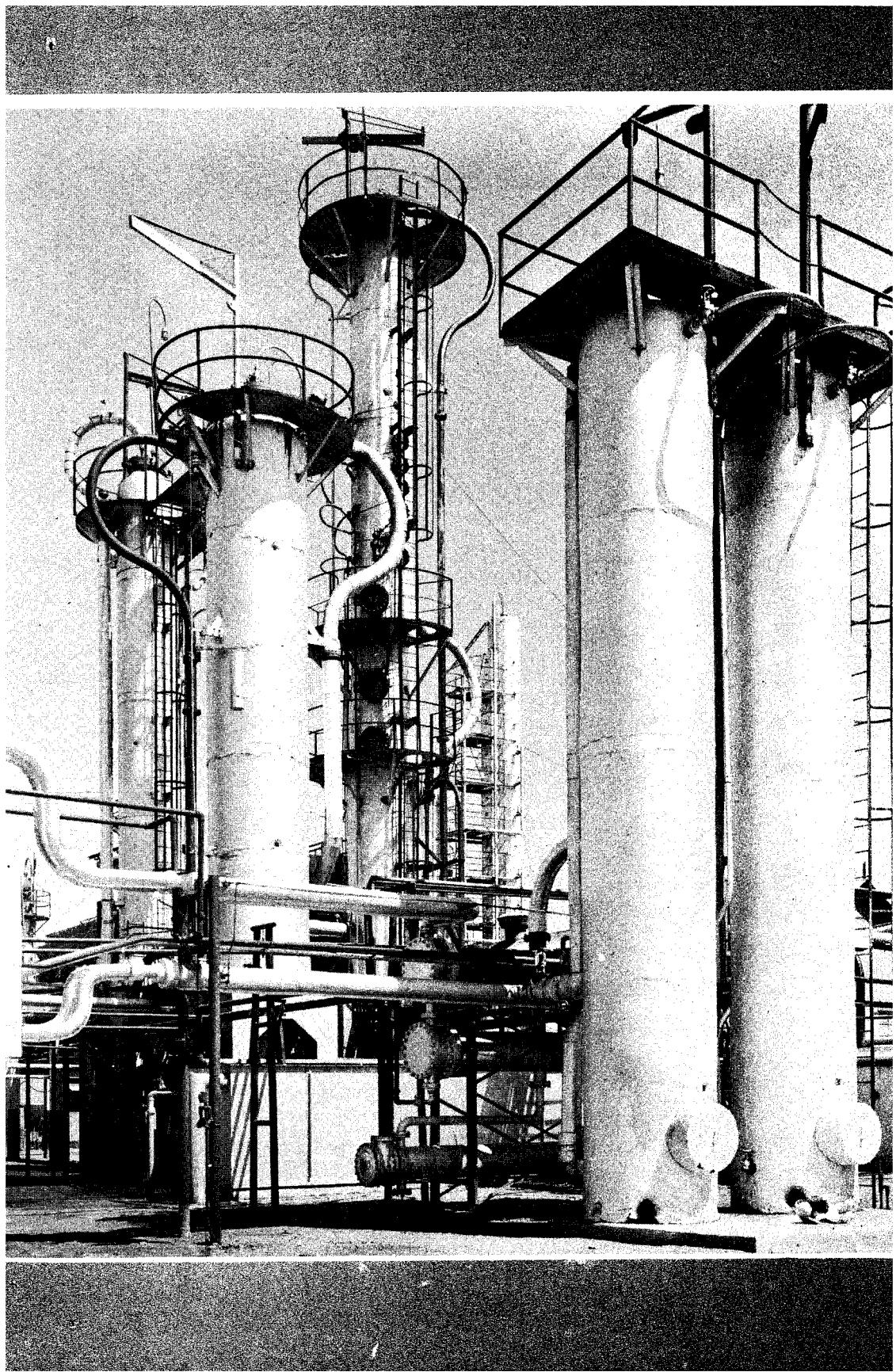
The United States was responsible for 60 per cent of world production as in former years, and therefore headed the list once again. Venezuela came definitely in second place. The Middle East followed, the oil producing countries under this heading being the Persian Gulf, Iran, Iraq, Saudi Arabia, Bahrein Island, Kuwait, Qatar and Egypt. Russia came fourth.

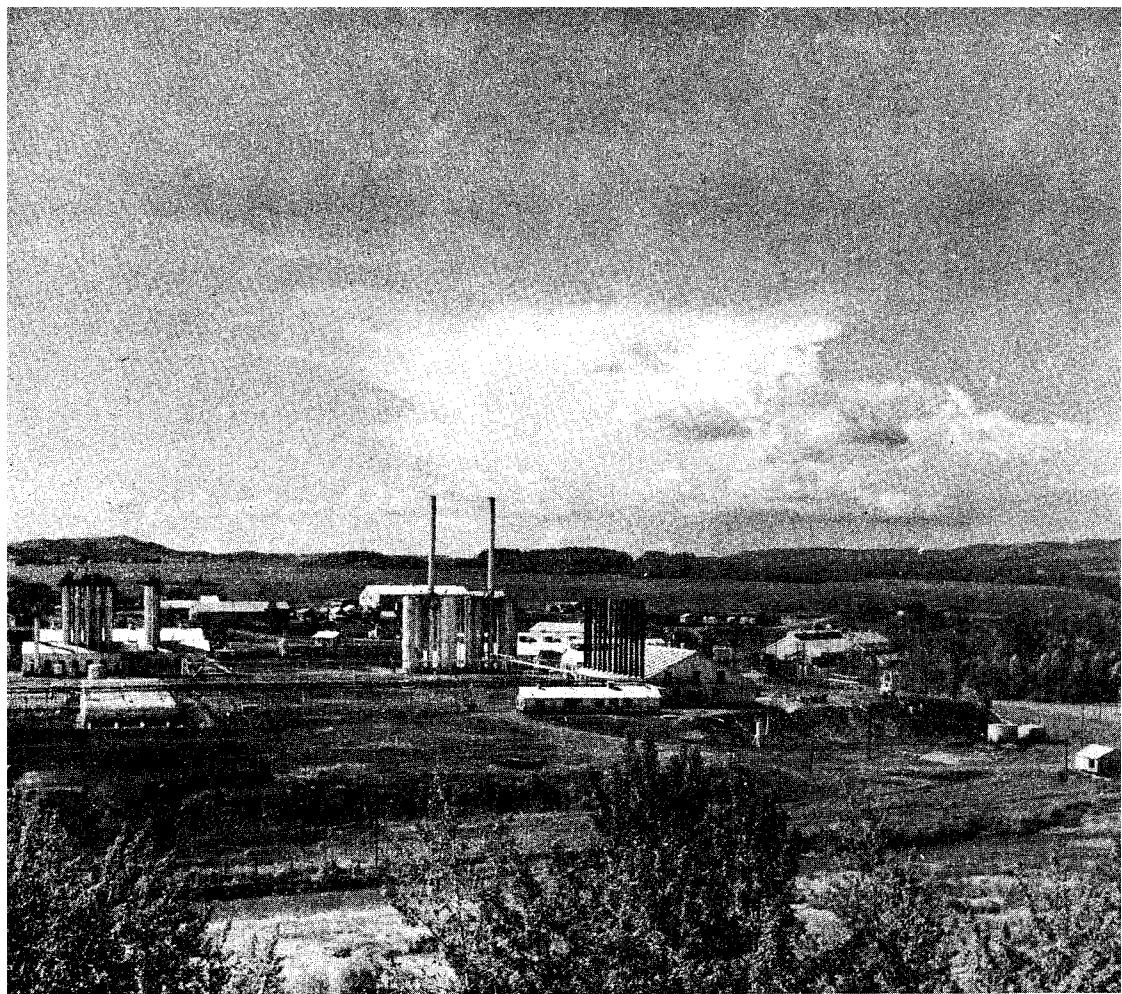
A general estimate of world oil production for 1946 with what figures are procurable gives an average daily production for the year of $7\frac{3}{4}$ million barrels or an approximate grand total for the year of 2,800,000,000 barrels.

For the reason given above, figures are also not available for oil production in all of the countries of the British Empire. Such being the case the usual British Empire statement, run in previous reviews, has had to be eliminated on this occasion.

The work of exploration for new Alberta oil fields was continued through the year by the application of scientific research and the drilling of test wells. Many new structures are being explored, amongst which that of the Smoky River area between Entrance and Grande Prairie is of special interest.







Imperial Oil-Extraction Plant,
Turner Valley

With reference to the table accompanying this review dealing with footage of wells drilled for oil in this province since 1914, it might be of interest to bring the total figures to miles. During this 32 year period the Turner Valley field has drilled 668½ miles below the earth's surface and fields outside have drilled 545, making a total of 1,213½ miles in all. In the matter of oil produced over this same period, Turner Valley now has a total of 87,501,593 barrels and fields outside a total of 2,822,958 making a grand total for the province of 90,324,551 barrels valued at \$151,688,485.

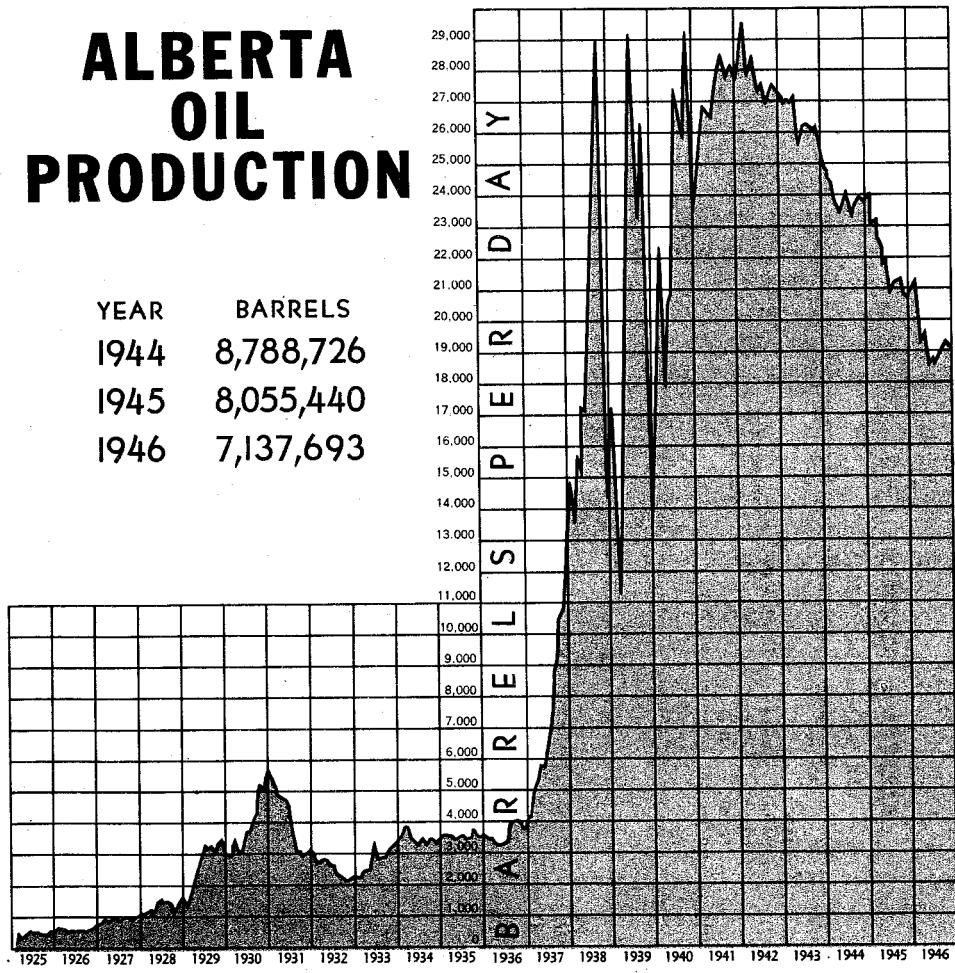
From all indication most of the proven fields outside of Turner Valley are expected to show continued increased production. In the Valley itself the prolific north end has once again come into the productive picture which should slow up to some extent the decline of that historic field. Added to this is the introduction of the Leduc discovery. With the volume of production from its first well an established fact, it is only reasonable to anticipate a most interesting development in this new area. The prospects for 1947 certainly justify an optimistic outlook.

FOOTAGE OF WELLS DRILLED FOR OIL IN ALBERTA

YEAR	TURNER VALLEY	REST OF ALBERTA	TOTALS
Prior to 1927 -----	115,391	532,241	647,632
1927-----	53,340	31,626	84,966
1928-----	111,160	56,380	167,540
1929-----	240,020	130,577	370,597
1930-----	123,583	105,751	229,334
1931-----	61,939	54,613	116,552
1932-----	13,096	19,525	32,621
1933-----	51,806	20,043	71,849
1934-----	78,278	17,946	96,224
1935-----	27,462	33,011	60,473
1936-----	52,470	46,145	98,615
1937-----	245,531	46,423	291,954
1938-----	303,112	60,180	363,292
1939-----	281,274	93,013	374,287
1940-----	297,018	72,779	369,797
1941-----	377,860	113,410	491,270
1942-----	348,772	160,915	509,687
1943-----	244,535	243,399	487,934
1944-----	266,145	331,683	597,828
1945-----	159,049	384,388	543,437
1946-----	77,997	323,923	401,920
TOTALS-----	<u>3,529,838</u>	<u>2,877,971</u>	<u>6,407,809</u>

ALBERTA OIL PRODUCTION

YEAR	BARRELS
1944	8,788,726
1945	8,055,440
1946	7,137,693



DEPARTMENT OF LANDS AND MINES, EDMONTON, JANUARY, 1947

ALBERTA'S OIL-FIELDS
(As in December, 1946)

FIELDS	WELLS PRODUCING IN DECEMBER 1946	DAILY AVERAGE PRODUCTION (Barrels)	WELLS DRILLING	PRODUCING DEPTHS (Feet)	GRAVITY A.P.I.	BASE	OUTLET	AGE OF FIELD
TURNER VALLEY:								
40 miles south of Calgary:								
Limestone, crude	291	14,783	3	6,800-9,600	39°-48°	Intermediate	Canadian	10½ years
Limestone, distillate	18	105	Nil	3,700-6,800	55°-73°	"	"	"
Limestone, natural gasoline	1,346	1,346	Nil	3,700-6,800	73°	"	"	"
Shallow crude	4	21	Nil	3,200-3,700	49°-50°	"	"	"
FIELDS OUTSIDE TURNER VALLEY:								
Taber, S.E. Alberta	13	528	Nil	3,200	18°-24°	"	"	8
Princess, S.E. Alberta	5	182	Nil	2,500-3,900	27°-34°	"	"	"
Conrad, S.E. Alberta	17	480	Nil	3,100	25°	"	"	2½
Wainwright, 150 miles east of Edmonton	6	31	Nil	2,200	18°	Hybrid	Local	21
Vermilion, 150 miles east of Edmonton	43	469	Nil	1,800	14°	Naphthenic	C.N.R., Mtn. Div.	7
Lloydminster, east of Edmonton, (Saskatchewan border)	17	259	2	1,900	10°-14°	"	"	"
MISCELLANEOUS:								
Jumping Pound	2	12	1	10,000	47°	Intermediate	Canadian	2
Del Bonita, Montana border .....	.....	.....	.....	5,200	35°-37°	"	"	7



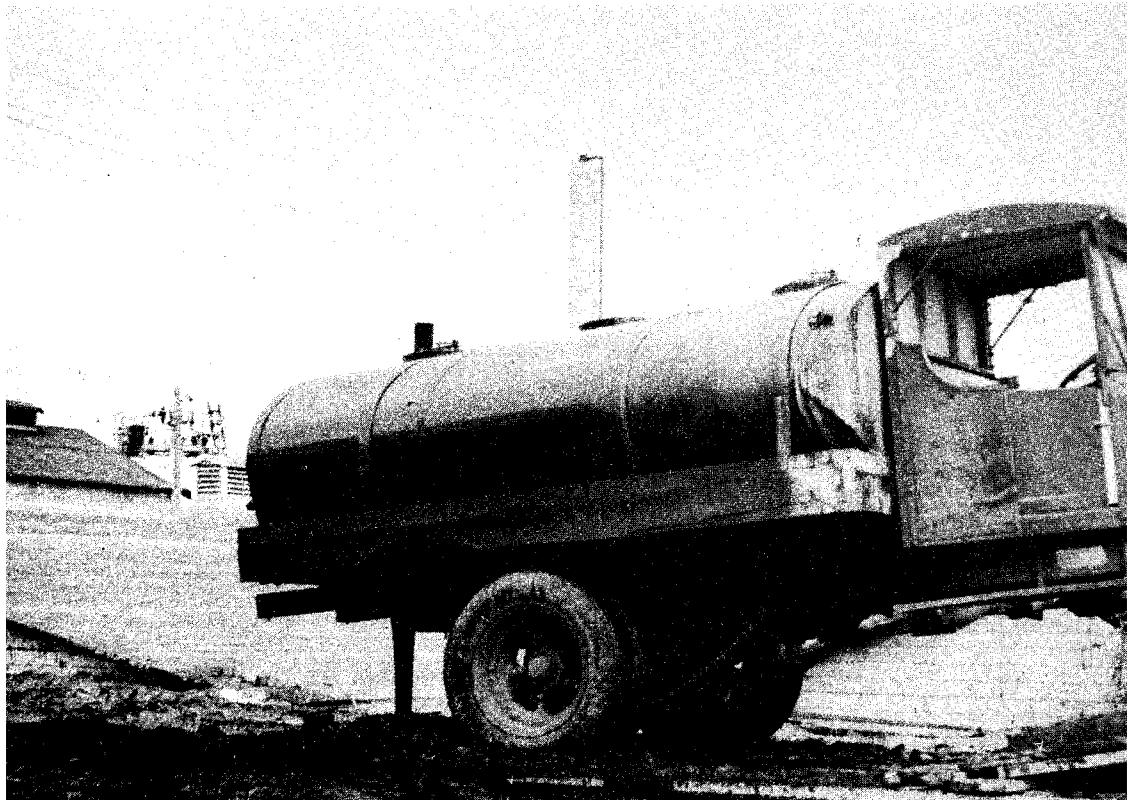
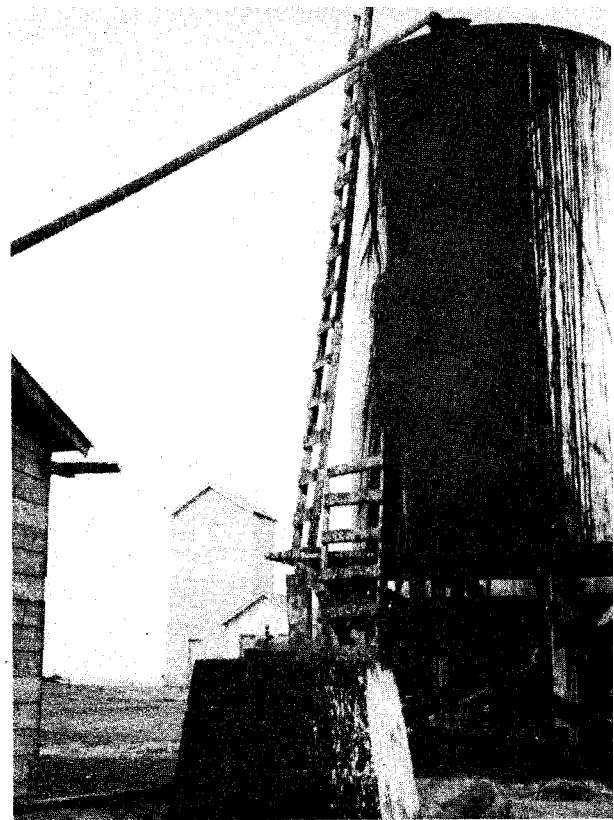
**Little Chicago townsite,
south Turner Valley**

ALBERTA CUMULATIVE OIL PRODUCTION TABLE BY CALENDAR YEARS
 (Quantities in Barrels of 35 Imperial Gallons)

CALENDAR YEARS	TURNER VALLEY			FIELDS OUTSIDE TURNER VALLEY			TABER HEAVY CRUDE	
	CRUDE OIL PRODUCTION		NATURAL GASOLINE RECOVERED	TURNER VALLEY TOTALS		VERMILION HEAVY CRUDE		
	SHALLOW ZONE	LIMESTONE ZONE		TURNER VALLEY TOTALS	VERMILION HEAVY CRUDE			
1914-21	56,599	56,599	76	76	56,675	(a) 56,675		
1914	56,599	63,158	9,237	9,313	15,756	72,471		
1915	6,559	1,943	8,060	17,373	10,003	82,474		
1916	65,101	1,689	13,128	30,501	17,749	100,223		
1917	2,932	68,033	1,689	1,689	180,852	281,108		
1918	2,926	70,959	169,008	170,697	8,951	46,735	494,725	
1919	2,609	73,568	203,735	374,422	7,283	52,589	329,257	
1920	38,808	112,376	284,595	659,017	5,854	52,589	823,982	
1921	70,910	183,286	410,448	1,069,465	.....	481,358	1,305,340
1922	73,181	256,467	908,411	1,977,876	.....	52,589	2,286,932
1923	50,897	307,364	1,316,102	3,293,978	.....	52,589	981,552
1924	26,936	334,300	1,345,310	4,639,288	.....	52,589	3,653,931
1925	21,757	356,057	854,517	5,493,805	.....	52,589	5,026,177
1926	23,915	379,972	766,735	6,266,560	185,781	238,370	876,244	
1927	22,307	402,279	796,440	7,056,700	414,324	652,694	5,902,451	
1928	18,903	421,182	711,451	7,768,151	496,681	1,149,375	1,227,055	
1929	13,011	434,193	671,948	8,446,059	602,360	1,751,735	1,287,319	
1930	10,589	444,782	2,098,970	10,539,069	657,169	2,408,904	2,766,738	
1931	9,192	453,974	6,150,512	16,689,581	531,434	2,940,338	13,392,755	
1932	8,431	462,405	7,251,063	23,949,644	296,787	3,237,125	6,691,138	
1933	7,309	469,714	8,173,016	32,113,660	274,172	3,511,297	7,556,281	
1934	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
1935	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
1936	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
1937	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
1938	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
1939	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
1940	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
1941	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
1942	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
1943	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
1944	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
1945	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
1946	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
1947	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
1948	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
1949	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
1950	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
1951	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
1952	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
1953	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
1954	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
1955	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
1956	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
1957	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
1958	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
1959	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
1960	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
1961	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
1962	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
1963	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
1964	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
1965	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
1966	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
1967	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
1968	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
1969	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
1970	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
1971	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
1972	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
1973	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
1974	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
1975	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
1976	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
1977	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
1978	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
1979	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
1980	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
1981	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
1982	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
1983	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
1984	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
1985	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
1986	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
1987	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
1988	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
1989	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
1990	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
1991	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
1992	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
1993	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
1994	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
1995	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
1996	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
1997	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
1998	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
1999	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
2000	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
2001	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
2002	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
2003	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
2004	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
2005	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
2006	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
2007	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
2008	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
2009	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
2010	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
2011	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
2012	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
2013	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
2014	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
2015	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
2016	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
2017	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
2018	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
2019	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	
2020	4,865	486,399	8,986,663	60,327,443	461,169	4,567,804	9,452,697	
2021	3,209	489,608	7,874,919	68,207,362	448,186	5,015,990	8,326,314	
2022	3,932	493,540	7,005,589	75,207,951	412,540	5,428,530	7,422,061	
2023	8,888	502,428	5,928,474	81,136,425	434,210	5,862,740	81,130,021	
2024	6,014	475,728	9,531,207	41,644,867	293,122	3,804,419	8,454,497	
2025	5,806	481,534	9,695,913	51,340,780	302,216	4,106,635	10,003,935	

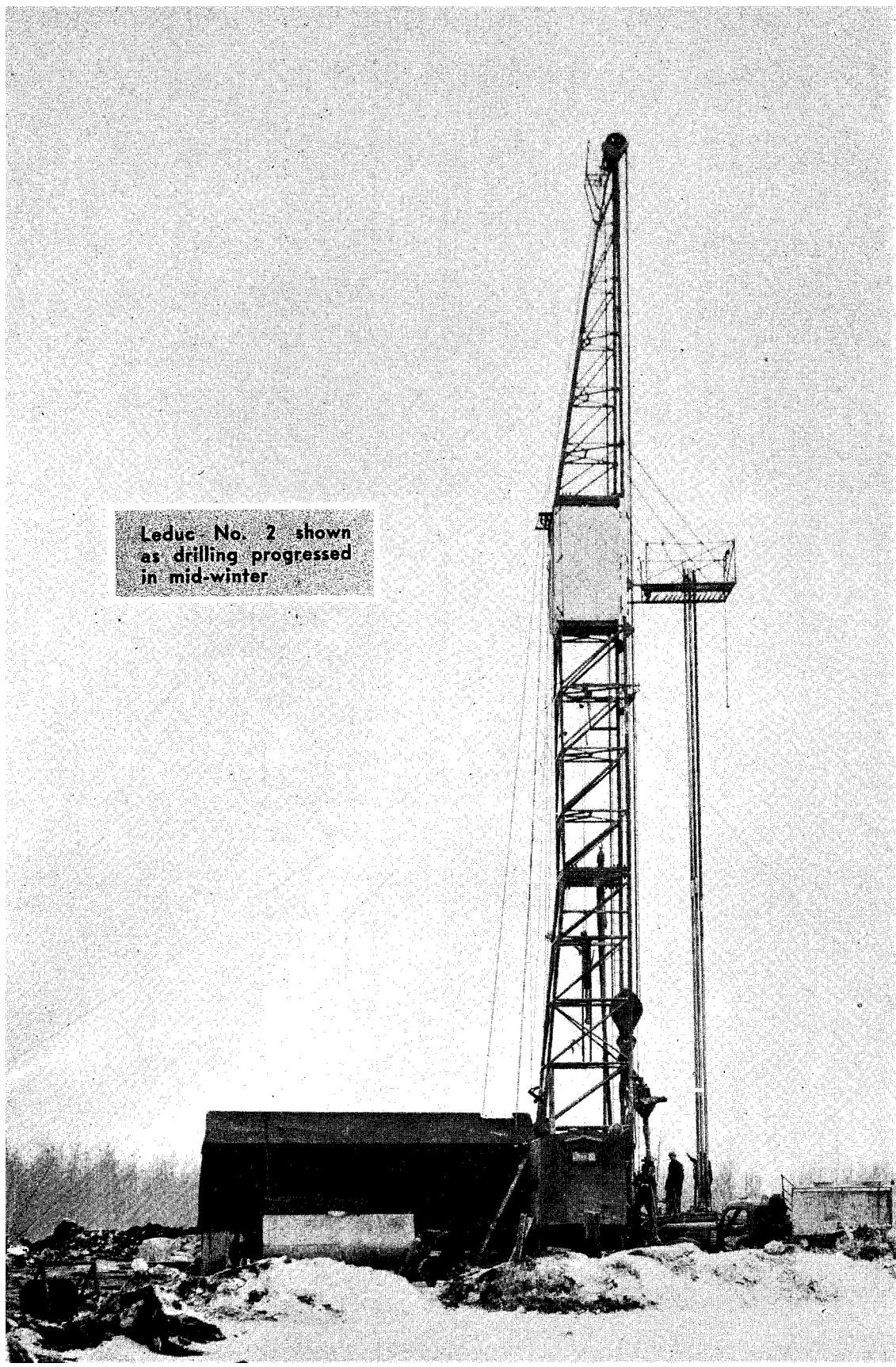


Vermilion Field.
Above—Overflow of oil in
filling storage
tank. Below—
Crude oil being
dumped into
the sump at
cleaning plant



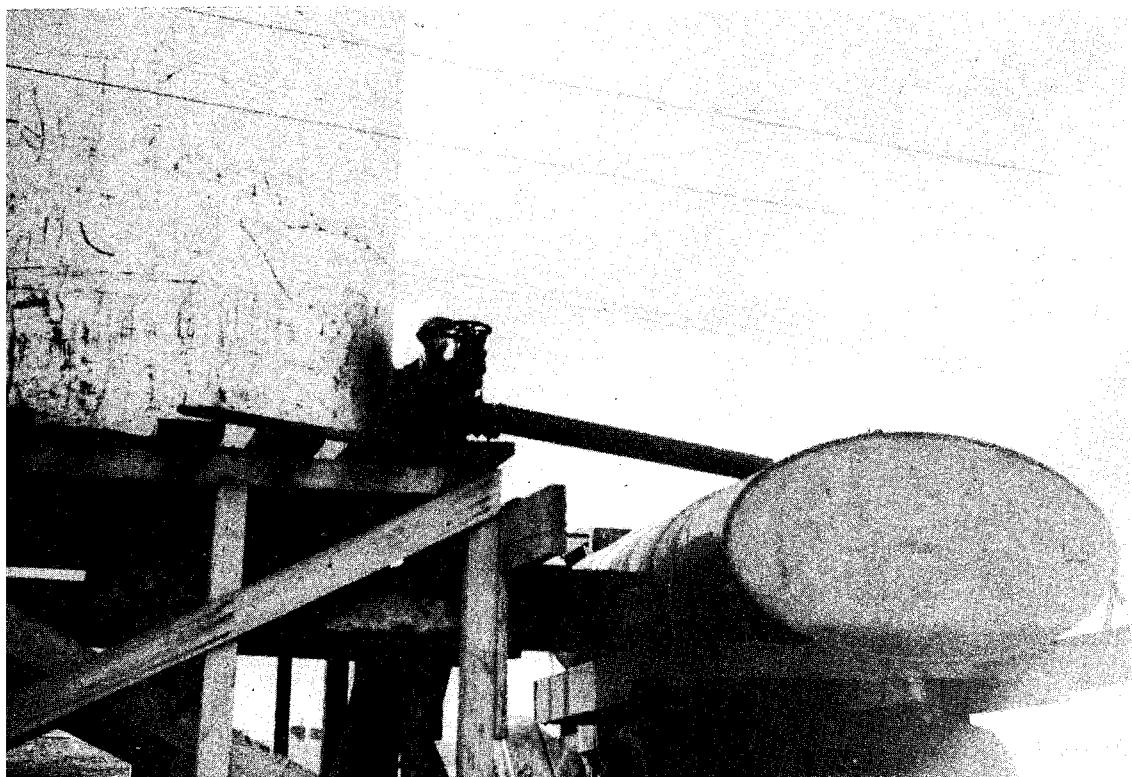
CUMULATIVE PRODUCTION TABLE—(Continued)

Leduc No. 2 shown
as drilling progressed
in mid-winter

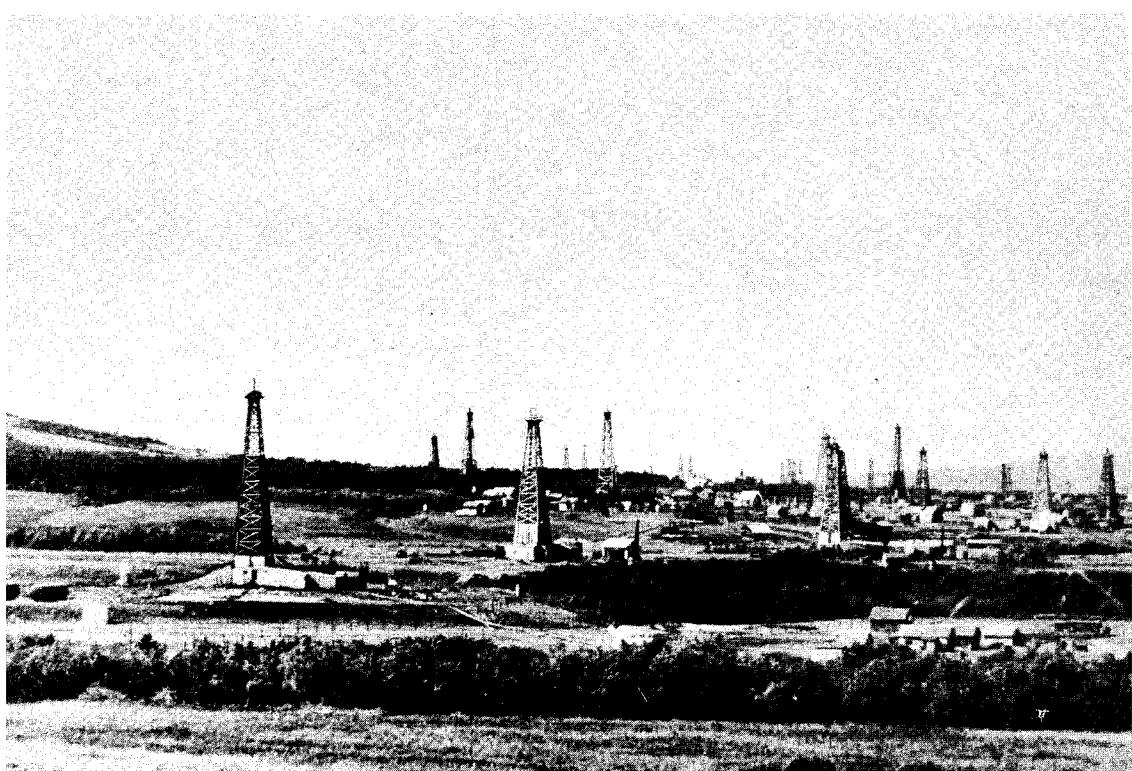


CUMULATIVE PRODUCTION TABLE—(Continued)

CALENDAR YEARS	FIELDS OUTSIDE TURNER VALLEY										ALBERTA TOTALS	(b) VALUATIONS
	DINA HEAVY CRUDE	SKIFF Light Crude	KEHO Light Crude	ARMELGRA Heavy Crude	RED COULEE Light Crude	LIGHT CRUDE Heavy Crude	TOTALS OF FIELDS OUTSIDE TURNER VALLEY					
							1914-21	1922	1923	1924	1925	1926
1914-21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1922	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1923	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1924	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1925	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1926	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1927	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1928	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1929	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	2,839	4,712	3,731	5,914	3,731	5,914	53,917	55,245	69,260	104,401	1,436,259	3,758,332
1930	1,873	4,712	3,731	5,914	3,731	5,914	63,066	120,311	82,570	186,971	1,434,816	5,213,148
1931	10,362	15,074	15,074	5,914	5,914	5,914	154,626	154,626	41,880	228,851	918,154	6,131,302
1932	.....	15,074	15,074	5,914	5,914	5,914	29,318	184,708	36,333	265,184	1,012,784	7,144,086
1933	.....	15,074	15,074	5,914	5,914	5,914	20,276	204,610	33,278	298,462	1,266,049	8,410,135
1934	.....	15,074	510	6,424	152	955	12,177	294,215	40,710	528,534	3,031,446	25,544,899
1935	.....	15,074	1,564	7,988	955	955	20,536	225,146	36,933	335,395	1,263,968	9,074,103
1936	.....	15,074	310	8,298	955	955	16,262	241,408	33,109	368,504	1,320,428	2,856,029
1937	1,642	16,716	8,298	955	955	955	13,790	255,198	30,146	398,650	1,796,874	31,367,658
1938	6,383	23,099	8,298	955	955	955	13,818	269,016	51,963	450,613	6,743,101	20,534,506
1939	3,633	26,722	8,298	955	955	955	13,022	282,038	37,211	487,824	7,593,492	28,127,998
1940	4,746	31,478	8,298	955	955	955	12,177	294,215	40,710	528,534	8,495,207	36,623,205
1941	2,894	34,372	8,298	955	955	955	11,626	305,841	78,300	606,834	9,908,643	46,531,848
1942	2,780	37,152	8,298	955	955	955	10,107	315,948	132,361	739,195	(c) 10,136,296	15,517,266
1943	200	37,352	8,298	955	462	462	8,928	324,876	221,851	961,046	9,674,548	282,247
1944	.....	37,352	8,298	955	462	462	3,835	328,711	462,412	1,423,458	8,788,726	323,580
1945	.....	37,352	8,298	955	462	462	3,835	328,711	633,379	2,056,837	8,055,440	411,675
1946	.....	37,352	8,298	955	462	1,140	329,851	766,121	2,822,958	7,137,693	90,324,551	151,688,485



Above — Filling oil truck in new Vermilion field
Below — Derricks in the older field of Turner Valley
where pipe-line transportation is employed



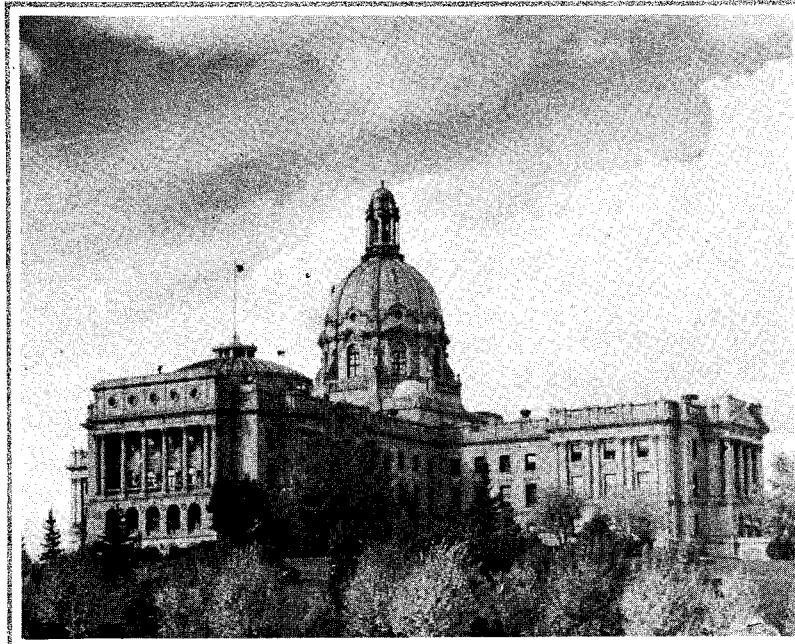
NOTE:—The cumulative Alberta Oil production tables appearing on the previous three pages, contain revisions based for the most part on additional data received. The most noticeable change is created by Royalite 4.

Figures in light faced type represent annual totals, and in black faced type the cumulative totals up to the end of the calendar year shown in the column in which they appear.

With the diminishing monthly totals of oil recovered from limestone gas wells, which by the close of 1944 were becoming more and more inconsequential in comparison with oil recovered from limestone oil wells, the Petroleum and Natural Gas Conservation Board decided, starting with January, 1945, to show future Turner Valley oil production records in three groups, classified as oil from shallow zone, oil from limestone zone and natural gasoline recovered. Should further detail under these three headings be required for the years dating back from 1944, such information is given in the cumulative oil production statements which are contained in the 1944 Alberta Oil Review, published by the Department of Trade and Industry, and in the Annual Reports of the Department of Lands and Mines for the fiscal years 1942-43 and 1943-44, which may be secured on application.

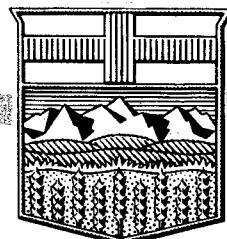
From 1921 to 1927, natural gasoline was derived from horizons above the limestone; from 1933 onward, from the limestone.

- (a) Estimated. Production from 1914 to 1921 cannot be substantiated in detail, and is probably a minimum figure. Southern Alberta 1, later completed as Dalhousie 1, was the largest producer.
- (b) Value of sales by primary producers have been revised after receiving considerable additional information on the years dating from 1923 to 1930. They must still, however, be considered as only rough estimates for that period, although they no doubt represent the probable value of oil produced at that time. During later years, actual sales of oil by primary producers are shown.
- (c) Net production total, after deducting storage loss of 6,974 barrels.



COVER PHOTOGRAPHS

- A—The Turner Valley oil field in 1914, which proudly announced the possession of two wells producing oil from the shallow horizon above the limestone
- B—A group of pioneer Alberta oil men, 1914, drilling Dingman No. 1 well, Turner Valley
- C—The Hon. N. E. Tanner, provincial minister of Lands and Mines, shown at the Leduc oil field in February, 1947. Beside Mr. Tanner is Vernon Taylor, assistant to Walker L. Taylor (right), Western Canadian manager for Imperial Oil
- D—Leduc No. 1 blows in



Copies of this booklet are available on application to the Publicity and Promotion Office, Department of Economic Affairs, Government of Alberta, Edmonton

March, 1947

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